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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,851

12/29/2004

Masanori Itoh

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EXAMINER

NGUYEN, LINH THI

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/519,851	Applicant(s) ITO, MASANORI	
	Examiner Linh T. Nguyen	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) 18 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, 14-16 and 20-25 is/are rejected.
- 7) ☒ Claim(s) 11, 13 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 18 and 19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 5/24/06.

Drawings

Figure 16 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 1 element 140 and 143. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version

of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "middle" in claim 1 is used by the claim to mean "midpoint", while the accepted meaning is "the center of the optical disk or half way between the beginning and the end of a optical disk." The term is indefinite because the specification does not clearly redefine the term.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 22-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 22-25 are drawn to a "program" *per se* as recited in the preamble and as such are non-statutory subject matter. See MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's

functionality to be realized.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10, 12, 13/10, 13/12, 14-16, 20-23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Koji (JP Publication 2001285760).

In regards to claims 1, 20, 22, and 25, AAPA discloses a reproducing apparatus (Fig. 16) method and program comprising: a reproducing unit (Fig. 16, element 321) that extracts, from a recording medium in which signals that have same contents but are compressed in plurality of different conditions (Fig. 16, element 301), and record management information (Fig. 16, element 143) that denotes a mutual association between said signals that have the same contents but are compressed in a plurality of different conditions are recorded, respectively any of said signals; a decoding unit (Fig. 16, element 311) that decodes any of said signals extracted from said recording medium (Fig. 16, element 321).

AAPA does not but Koji discloses recording unit that records, in correspondence to said record management information (Paragraph [0016], lines 3-5), reproduction

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management information including reproduction middle information that denotes middle of a reproduction of signals from said recording medium (Paragraph [0018]). At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the reproducing apparatus of AAPA to denote the middle of the reproduction signal as suggested by Koji. The motivation for doing so would have been to reduce recording time.

In regards to claim 2, AAPA does not but Koji discloses the reproducing apparatus, wherein recording unit records said reproduction management information on said recording medium (Paragraph [0016]). The motivation is the same as claim 1 above.

In regards to claim 3, AAPA does not but Koji discloses the reproducing apparatus, further comprising a built-in flash memory (It is obvious to have different memory such as, ROM, RAM, and flash as suggested by JP-2001344874), wherein said reproduction management information is recorded on said flash memory (Paragraph [0018]). At the time of the invention it would have been obvious to person of ordinary skill in art to modify the reproducing apparatus of AAPA to have a flash memory as suggest by Koji. The motivation for doing so would have been to create more memory space.

In regards to claims 4, 21, and 23, AAPA discloses an apparatus, method and program, which compresses during recording, therefore, will extract during reproducing (Fig. 16, elements 320 and 321).

AAPA does not but Koji discloses the reproducing apparatus, wherein the reproduction management information is read from said flash memory (Paragraph [0018]), and based record/reproduction management information from said recording medium, signals corresponding to said reproduction middle information included in said reproduction management information (Paragraph [0018] and [0019]). The motivation is the same as claim 1 above.

In regards to claims 5/1, 5/2, 5/3 and 5/4, AAPA does not but Koji discloses the reproducing apparatus, wherein said reproduction middle information concerns elapsed time from start of reproduction of said signal (Paragraph [0006], lines 7-11). The motivation for doing so would have been to fully grasp the content at the exact location of the interruption occurs.

In regards to claim 6, AAPA does not but Koji discloses the reproducing apparatus, wherein said recording unit further records, in correspondence to said record management information and said reproduction management information, identification information of said recording medium on said flash memory (Paragraph [0026], lines 1-4 and Paragraph [0028]). The motivation is the same as claim 3 above.

In regards to claim 7, AAPA discloses the reproducing apparatus, wherein said reproducing unit further extracts said record management information (Fig. 16, element 321), said reproduction management information, and said identification information of said recording medium (Fig. 16, elements 341 and 143 checks the management information from the disk), any of signals extracted from said recording medium is suitable for said reproducing unit and/or said decoding unit (Fig. 16, elements 321 and 311), and said reproducing unit, based on said record management information, said reproduction management information, and said identification information of said recording medium (Fig. 16, element 341 and 143).

AAPA does not but Koji discloses the reproducing apparatus, wherein signals after signals corresponding to said reproduction middle information included in said reproduction management information (Paragraph [0018]). The motivation is the same as claim 1 above.

In regards to claim 8, AAPA discloses the reproducing apparatus, wherein said different conditions concern different bit rates, different numbers of pixels, or different compression methods (Paragraph [0002] and Paragraph [0007]).

In regards to claim 9, AAPA discloses the reproducing apparatus, wherein said signals that have the same contents but are compressed in a plurality of different conditions are recorded on said recording medium (Fig. 16, element 301) so that each of said signals can be continuously reproduced (Paragraph [0008], lines 10-16).

In regards to claim 10, AAPA discloses the reproducing apparatus, wherein said signals that have the same contents but are compressed in a plurality of different conditions are recorded respectively in continuous data areas (Fig. 16, element 301), each of which has size that is equal to or larger than a predetermined size (Paragraph [0004], lines 17-19; It is obvious that different conditions of compressing will have a predetermined size of bit).

In regards to claim 12, AAPA discloses the reproducing apparatus, wherein said signals that have the same contents but are compressed in plurality of different conditions are recorded respectively in continuous data areas (Fig. 16, element 301), each of which has size that is equal to or larger than predetermined size (Paragraph [0004], lines 17-19; It is obvious that different conditions of compressing will have a predetermined size of bit), and said continuous data areas are recorded in a form of being repeatedly alternately arranged (Paragraph [0005], it continuous record and checks to see if available to record more data, if not, it is able to erase files on the medium to arrange the new data).

In regards to claims 13/10 and 13/12, AAPA discloses the reproducing apparatus, wherein said signals compressed in a plurality of different conditions that are recorded in the continuous data areas (Fig. 16, element 301), each of which has size that is equal to or larger than the predetermined size, have same reproduction time

(Paragraph [0004], compressing signal in MPEG2, has bit rate that is define, therefore size and time is the same).

In regards to claim 14, AAPA discloses the reproducing apparatus, wherein said decoding unit further decodes signals compressed in a plurality of different conditions that are extracted from said recording medium (Fig. 16, element 311).

In regards to claim 15, AAPA discloses the reproducing apparatus, wherein said different compression methods are MPEG2 and MPEG4, respectively (Paragraph [0002] and [0003]).

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Koji as applied to claim 1 above, and further in view of Nagasaka et al (US Patent number 5818439).

In regards to claim 24/22 and 24/23, AAPA and Koji discloses the limitation of claims 22 and 23 above. AAPA and Koji do not but Nagasaka et al discloses a computer executable program (Column 14, lines 63-67 and Column 15, lines 1-4). At the time of the invention it would be obvious to person of ordinary skill in the art to combine the function of compressing/extracting of AAPA and Koji into a computer executable program as suggested by Nagasaka et al. The motivation for doing so would have been to create a quicker execution.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 16 is rejected under 35 U.S.C. 102(b) as being unpatentable by AAPA.

In regards to claim 16, AAPA discloses a recording apparatus, comprising: a recording unit that records, on a recording medium, signals that have same contents but are compressed in a plurality of different conditions, and record management information that denotes a mutual association between said signals that have the same contents but are compressed in a plurality of different conditions; a reproducing unit that extracts a signal recorded on said recording medium; and a decoding unit that decodes a signal extracted from said recording medium, wherein said recording unit records said signals that have the same contents but are compressed in a plurality of different conditions, respectively, in continuous data areas, each of which has size that is equal to or larger than a predetermined size (Paragraph [0004], lines 17-19; It is inherent that different conditions of compressing will have a predetermined size of bit), and records said continuous data areas on said recording medium in a form of being repeatedly alternately arranged (Paragraph [0005], it continuously records and checks to see if available to record more data, if not, it is able to erase files on the medium to arrange the new data).

Allowable Subject Matter

Claims 11, 13/11, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In regard to claim 11, none of the references alone or combination discloses or suggest the reproducing apparatus, wherein said recording medium is an optical disc, a magneto-optical disc, or a magnet disc, said reproducing unit has a head for reading a signal from said recording medium, and **said predetermined size is expressed by the following equation: (equation 1)**

$$\mathbf{Vo * Tj * Vr / (Vr - Vo)}$$

(Vo: data transfer rate to said decoding unit (Mbps), Tj: maximum seek time of said head (second), Vr: data-reading rate of each of said signals from said recording medium by said head (Mbps)).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Watanabe (US Publication number 2004/0252980) discloses an apparatus and method, which set the sizes of the data to record within the recording unit.

Yasuda et al (US Patent Number 5191567) discloses a reproducing apparatus comprises a memory to memorize the address data when an interruption occurs.

Nakagawa (JP Publication number 2001-344874) discloses a reproducing apparatus that stop in mid-way thereafter continue reproduction.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh T. Nguyen whose telephone number is 571-272-5513. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LN
August 4, 2006


ANDREA WELLINGTON
SUPERVISORY PATENT EXAMINER